

From

13th June 2022

Dr. Suseela Lanka

Department of Biosciences and Biotechnology
University College of Arts & Science (UCAS)
Krishna University
Machilipatnam-521004

To

The Principal

University College of Arts & Science (UCAS)
Krishna University
Machilipatnam-521004

(THROUGH PROPER CHANNEL)

Respected Sir,

Sub: Request permission to conduct a Value Added Course to the M.Sc-
Biotechnology II year, 2021-22 academic year – Reg

With reference to the above subject cited, I request you to grant permission to conduct two weeks Value Added Course (VAC) to the senior students of M.Sc., Biotechnology of 2021-22 academic year on "**Pilot Scale Production of Fermented Foods and Beverages**" by the Department of Biosciences and Biotechnology, Krishna University, Machilipatnam. The proposed course work is scheduled from 20-06-2022 to 06-07-2022.

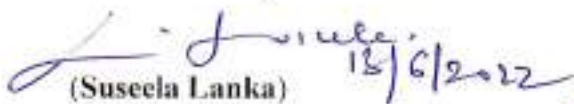
We, **Dr. Suseela Lanka**, Co-ordinator and **Dr. J.Naveena Lavanya Latha** Co-coordinator for this Value Added Course. The details of the Value Added Course are enclosed along with this letter.

A brief report including the Student enrolment, attendance, along with the proof of participants (soft copies of the photographs) will be submitted to your office immediately after the completion of the Value Added Course.

In this connection, I request you to permit me to start the above mentioned Value-Added Course.

Thanking You,

Yours Sincerely


(Suseela Lanka) 13/6/2022


Head
Department of Bioscience and Biotechnology
Krishna University
MACHILIPATNAM - 521 004


Principal
University College of Arts & Science
Krishna University
Machilipatnam - 521 004

Enclosure: Details of Value Added Course

Department of Biosciences and Biotechnology
University College of Arts & Science (UCAS)
Krishna University, Machilipatnam-521004

Proposed Value Added Course (VAC) to M.Sc., Biotechnology- II year
students of the Academic year 2021-22

Duration: 2 weeks

Date of commencement: **20-06-2022 to 06-07-2022**

Name of the Course Co-Ordinator: **Dr. Suseela Lank**

Name of the Course Co-coordinator: **Dr. J.Naveena Lavanya Latha**

Name of the Course: **"Pilot Scale Production of Fermented Foods and Beverages"**

Course Code: **21BITVAC1**

Mode of Classes: **Offline**

Objectives of the Course:

1. To impart the Knowledge on principles and procedures involved in the fermented food production
2. To provide an understanding of the science and technology for processing different types of beverages.
3. To impart the knowledge on Industrial microbial products.

Modules of the Course:

1. Introduction to fermented foods
2. Science behind fermented foods.
3. Role of microorganisms in fermentation
4. Types of fermented food products
5. Microbial production of cheese
6. Microbial flora of Idli, Dosa
7. Preparation of fermented Pickles*
8. Production and microbial analysis of paneer
9. Introduction to beverages
10. Types of beverages
11. Pilot scale production of wine
12. Pilot scale production of beer
13. Pilot scale production of apple cider vinegar
14. Packing and presentation of fermented foods
15. Value addition to fermented foods, concluding remarks

Outcomes of the course:

- The student will be able to understand the concept of microbial culture selection for particular fermented product
- The student will be able to understand the processing of fermented milk, meat and fish products and analyse their qualities
- The student will be able to understand the processing of alcoholic beverages and fermented fruit & vegetables products
- 4. The student will be able to apply the knowledge of fermentation in production of industrial microbial products.





KRISHNA UNIVERSITY

Prof. D. SURYACHANDRA RAO

Principal

University College of Arts and Science

Krishna University

Machilipatnam-521 004



Mobile: 9440149149

Email: kru.principal@gmail.com

Dt. 14-06-2022

CIRCULAR

A two week value added course entitled "**Pilot Scale Production of Fermented Foods and Beverages**" (21BITVAC1) has been introduced by the Department of Biosciences and Biotechnology for the 2nd year M.Sc. Biotechnology students of the Academic Year 2021-22. All the 2nd year M.Sc. Biotechnology students are hereby informed to enroll/register for the value added course conducted by the department. The course duration is for 2 weeks from 20-06-2022 to 06-07-2022 and detailed information of course details can be obtained from the Department of Biosciences and Biotechnology.


PRINCIPAL
Principal
University College of Arts & Science
Krishna University
Machilipatnam - 521 004

Copy to:

PS to Vice Chancellor, Krishna University, Machilipatnam

PA to Registrar, Krishna University, Machilipatnam.

Department of Biosciences and Biotechnology.

File.

Department of Biosciences and Biotechnology

University College of Arts & Science (UCAS)

Krishna University, Machilipatnam-521004

Day wise programme schedule of the proposed value added course

“Pilot Scale Production of Fermented Foods and Beverages”

Course Code: 21BITVAC1

Day	Date	Topics to be covered
Day 1	20-06-2022	Fermented Foods: Introduction to fermentation
Day 2	21-06-2022	Science behind fermented foods
Day 3	22-06-2022	Role of microorganisms in fermentation
Day 4	23-06-2022	Types of fermented food products
Day 5	24-06-2022	Microbial production of cheese
Day 6	25-06-2022	Traditional fermented foods, Idli, Dosa and associated Microbial flora
Day 7	27-06-2022	Preparation of Fermented Pickles
Day 8	28-06-2022	Production and microbial analysis of paneer
Day 9	29-06-2022	Introduction to beverages
Day 10	30-06-2022	Types of beverages, commercial importance
Day 11	1-07-2022	Pilot scale production of wine
Day 12	2-07-2022	Pilot scale production of beer
Day 13	4-07-2022	Pilot scale production of apple cider vinegar
Day 14	5-07-2022	Packing and presentation of fermented foods
Day 15	6-07-2022	Value addition to fermented foods, concluding session



Head

Department of Bioscience and Biotechnology
Krishna University
MACHILIPATNAM - 521 004


Course Coordinator & Co-coordinator



KRISHNA UNIVERSITY

University College of Arts and Science

Machilipatnam-521004

Two-week Value-added Course on Pilot Scale Production of Fermented Foods and Beverages

From 20-06-2022 to 06-07-2022

**Organized by
Department of Bioscience and Biotechnology**

**Chief Patron
Prof. K. B. Chandra Sekhar
Vice-Chancellor
Krishna University**

Patrons

**Dr. M. Rami Reddy
Registrar
Krishna University**

**Prof. D. Surya Chandra Rao
Rector
Krishna University**

**Prof. D. Surya Chandra Rao
Principal
UCAS, Krishna University**

**Dr. P.Veera Brahma Chary
Head of the Department
Department of Biosciences and Biotechnology**

**Course Coordinator
Dr. Suseela Lanka
Assistant Professor
Department of BSBT**

**Course Co-coordinator
Dr. J.Naveena Lavanya Latha
Assistant Professor
Department of BSBT**

KRISHNA UNIVERSITY



UNIVERSITY COLLEGE OF ARTS & SCIENCE MACHILIPATNAM-521004

Department of Biosciences and Biotechnology

Two weeks Value Added Course on "Pilot Scale Production of Fermented Foods and Beverages" to the M.Sc., Biotechnology students of academic year 2021-22 From 20-06-2022 to 06-07-2022

Student Enrollment Form List

Name of the Coordinator: Dr. Suseela Lanka
Designation: Assistant Professor

Name of the Co-Coordinator: Dr. J. N. Lavanya Latha
Designation: Assistant Professor

Date: 18-6-2022

S.No.	Name of the Student	Regd.No.	Signature of the Student
1	K. Tilechana Devi	Y20BIT101001	Tilechana Devi.
2	S. Hasi Priya	Y20BIT101002	S. Hasi priya
3	M. Sekhar	Y20BIT101003	M. Selchar
4	V. Naga Supraja	Y20BIT101004	v. Naga Supraja
5	R. Sharma	Y20BIT101005	R. Sharma.
6	CH. DEEPTHI	Y20BIT101006	Ch. Deepthi.
7	B. Jai Sainath	Y20BIT101007	B. Jai Sainath.
8	N. Siva Krishna	Y20BIT101008	N. Sivakrishna
9	J. KESHAVI	Y20BIT101009	J. keshavi
10	M. JH. Subhani	Y20BIT101011	M. JH. Subhani
11	E. Navya Sri	Y20BIT101012	E. Navya Sri
12	L. Esther	Y20BIT101013	Esther, L
13	S. Harshitha	Y20BIT101014	S. Harshitha
14	P. Sharmila	Y20BIT101015	P. Sharmila
15	Y. Mamatha	Y20BIT101016	Y. Mamatha
16	K. Phaneendra	Y20BIT101017	K. Phaneendra.

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Signature of the HOD

HEAD
DEPARTMENT OF BIOSCIENCES & BIOTECHNOLOGY
UNIVERSITY COLLEGE OF ARTS & SCIENCE
KRISHNA UNIVERSITY
MACHILIPATNAM - 521 004 A.P.

KRISHNA UNIVERSITY



UNIVERSITY COLLEGE OF ARTS & SCIENCE MACHILIPATNAM-521004

Two weeks Value Added Course on “Pilot Scale Production of Fermented Foods and Beverages” to the M.Sc., Biotechnology students of academic year 2021-22 From 20-06-2022 to 06-07-2022

Day wise Student Attendance

Name of the Coordinator: Dr. Suseela Lanka
Designation: Assistant Professor

Name of the Co-Coordinator: Dr. J. N. Lavanya Latha
Designation: Assistant Professor

Date: 20-6-2022

S.No.	Name of the Student	Regd.No.	Signature of the Student
1	N. Siva Krishna	Y20BIT101008	N. Siva Krishna
2	L. Esther	Y20BIT101013	Esther. L
3	R. Shama	Y20BIT101005	R. Shama
4	V. Naga Supraja	Y20BIT101004	V. Naga Supraja
5	S. Harshitha	Y20BIT101019	S. Harshitha
6	CH. Deepthi	Y20BIT101006	Ch. Deepthi
7	J. Keshavi	Y20BIT101009	J. Keshavi
8	K. Pilechana Devi	Y20BIT101001	Pilechana Devi
9	B. Jai Sainath	Y20BIT101007	B. Jai Sainath
10	M. SH. Subhani	Y20BIT101011	Sh. Subhani
11	M. Sekhar	Y20BIT101003	M. Sekhar
12	E. Navya Sai	Y20BIT101012	E. Navya Sai
13	K. Phaniendra	Y20BIT101014	K. Phaniendra
14	P. Shagmika	Y20BIT101015	P. Shagmika
15	S. Hasi Priya	Y20BIT101001	S. Hasi Priya
16	Y. Mamatha	Y20BIT101016	Y. Mamatha

L. Suseela

J. N. Lavanya Latha

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UNIVERSITY COLLEGE OF ARTS & SCIENCE
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UNIVERSITY COLLEGE OF ARTS & SCIENCE MACHILIPATNAM-521004

Two weeks Value Added Course on "Pilot Scale Production of Fermented Foods and Beverages" to the M.Sc., Biotechnology students of academic year 2021-22 From 20-06-2022 to 06-07-2022

Day wise Student Attendance

Name of the Coordinator: Dr. Suseela Lanka
Designation: Assistant Professor

Name of the Co-Coordinator: Dr. J. N. Lavanya Latha
Designation: Assistant Professor

Date: 21-6-2022

S.No.	Name of the Student	Regd.No.	Signature of the Student
1	K. Phandendra	Y20BIT10101A	K. Phandendra
2	L. Esther	Y20BIT101013	Esther.L
3	V. Naga Supraja	Y20BIT101004	V. Naga Supraja
4	S. Hari Priya	Y20BIT101002	S. Hari priya
5	B. Jai Sainath	Y20BIT101007	B. Jai Sainath
6	J. Keshavi	Y20BIT101000	J. keshavi
7	K. Tilochana Devi	Y20BIT101001	Tilochana Devi
8	CH. Deepthi	Y20BIT101006	ch. Deepthi
9	Y. Mamatha	Y20BIT101016	Y. Mamatha
10	SH. Subhasini	Y20BIT101011	SH. subhasini
11	S. Harshitha	Y20BIT101012	S. Harshitha
12	R. Shama	Y20BIT101005	R. Shama
13	M. Selchar	Y20BIT101003	M. Selchar
14	E. Navya Sai	Y20BIT101012	E. Navya Sai
15	P. Sharmila	Y20BIT101015	P. Sharmila
16	N. Sri Krishna	Y20BIT101008	N. Sri Krishna

J.N.L

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Two weeks Value Added Course on "Pilot Scale Production of Fermented Foods and Beverages" to the M.Sc., Biotechnology students of academic year 2021-22 From 20-06-2022 to 06-07-2022

Day wise Student Attendance

Name of the Coordinator: Dr. Susela Lanka
Designation: Assistant Professor

Name of the Co-Coordinator: Dr. J. N. Lavanya Latha
Designation: Assistant Professor

Date: 22-6-2022

S.No.	Name of the Student	Regd.No.	Signature of the Student
1	K. Phanendran	Y20BIT101017	K. Phanendran
2	S. Hari Priya	Y20BIT101002	S. Hari priya
3	Y. Mamatha	Y20BIT101016	Y. Mamatha
4	V. Naga Supraja	Y20BIT101004	V. Naga Supraja
5	B. Jai Sainath	Y20BIT101007	B. Jai Sainath
6	J. Keshavi	Y20BIT101008	J. Keshavi
7	K. Tilochana Devi	Y20BIT101001	Tilochana devi
8	Ch. Deepthi	Y20BIT101006	ch. Deepthi
9	S. Subhavi	Y20BIT101011	S. Subhavi
10	R. Shama	Y20BIT101005	R. Shama
11	M. Sekhar	Y20BIT101023	M. Sekhar
12	E. Navya Sri	Y20BIT101012	E. Navya Sri
13	N. Siva Krishna	Y20BIT101008	N. Siva Krishna
14	P. Sharmila	Y20BIT101015	P. Sharmila
15	S. Harshitha	Y20BIT101018	S. Harshitha
16	L. Esther	Y20BIT101013	Esther .L

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UNIVERSITY COLLEGE OF ARTS & SCIENCE MACHILIPATNAM-521004

Two weeks Value Added Course on "Pilot Scale Production of Fermented Foods and Beverages" to the M.Sc., Biotechnology students of academic year 2021-22 From 20-06-2022 to 06-07-2022

Day wise Student Attendance

Name of the Coordinator: Dr. Suseela Lanka
Designation: Assistant Professor

Name of the Co-Coordinator: Dr. J. N. Lavanya Latha
Designation: Assistant Professor

Date: 23/6/22

S.No.	Name of the Student	Regd.No.	Signature of the Student
1	N. Siva krishna	Y20BIT101008	N. Siva krishna
2	K. Phaneendra	Y20BIT101012	K. Phaneendra
3	L. Esther	Y20BIT101013	Esther. L
4	V. Naga Supraja	Y20BIT101004	V. Nagasupraja
5	J. Keshavi	Y20BIT101009	J. Keshavi
6	S. Hasi Priya	Y20BIT101002	S. Hasi priya
7	CH. Deepthi	Y20BIT101006	Ch. Deepthi
8	R. Shama	Y20BIT101005	R. Shama
9	S. Harshitha	Y20BIT101014	S. Harshitha
10	B. Jai Sainath	Y20BIT101007	B. Jai Sainath
11	M. Sekhar	Y20BIT101003	M. Sekhar
12	E. Navya Sri	Y20BIT101012	E. Navya sree
13	H. Subhavi	Y20BIT101019	H. Subhavi
14	P. Sharmika	Y20BIT101015	P. Sharmika
15	Y. Mamatha	Y20BIT101016	Y. Mamatha
16	K. TPlochara Devi	Y20BIT101001	TPlochara Devi

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J.N.L

Signature of the HOD

DEPARTMENT OF BIOSCIENCES & BIOTECHNOLOGY
UNIVERSITY COLLEGE OF ARTS & SCIENCE
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MACHILIPATNAM - 521 003, A.P

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UNIVERSITY COLLEGE OF ARTS & SCIENCE MACHILIPATNAM-521004

Two weeks Value Added Course on "Pilot Scale Production of Fermented Foods and Beverages" to the M.Sc., Biotechnology students of academic year 2021-22 From 20-06-2022 to 06-07-2022

Day wise Student Attendance

Name of the Coordinator: Dr. Suseela Lanka
Designation: Assistant Professor

Name of the Co-Coordinator: Dr. J. N. Lavanya Latha
Designation: Assistant Professor

Date: 24/6/22

S.No.	Name of the Student	Regd.No.	Signature of the Student
1	K. Phaneendra	Y20BIT101017	K. Phaneendra
2	L. Esther	Y20BIT101013	Esther, L
3	N. Siva Krishna	Y20BIT101008	N. Siva Krishna
4	V. Naga Supraja	Y20BIT101004	V. Naga Supraja
5	Y. Mamatha	Y20BIT101016	Y. Mamatha
6	S. Harshitha	Y20BIT101019	S. Harshitha
7	Ch. Deepthi	Y20BIT101006	Ch. Deepthi
8	J. Keshavi	Y20BIT101008	J. Keshavi
9	B. Jai Sainath	Y20BIT101007	B. Jai Sainath
10	SH. Subhane	Y20BIT101011	SH. Subhane
11	S. Hasi Priya	Y20BIT101002	S. Hasi priya
12	R. Shama	Y20BIT101005	R. Shama
13	M. Sekhar	Y20BIT101003	M. Sekhar
14	E. Navya Sai	Y20BIT101012	E. Navya Sai
15	P. Sharmika	Y20BIT101015	P. Sharmika
16	K. T. Pochanna. Devi	Y20BIT101001	T. Pochanna Devi

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Signature of the HOD

HEAD
DEPARTMENT OF BIOSCIENCES & BIOTECHNOLOGY
UNIVERSITY COLLEGE OF ARTS & SCIENCE
KRISHNA UNIVERSITY
MACHILIPATNAM - 521 003, A.P

KRISHNA UNIVERSITY



UNIVERSITY COLLEGE OF ARTS & SCIENCE MACHILIPATNAM-521004

Two weeks Value Added Course on "Pilot Scale Production of Fermented Foods and Beverages" to the M.Sc., Biotechnology students of academic year 2021-22 From 20-06-2022 to 06-07-2022

Day wise Student Attendance

Name of the Coordinator: Dr. Suseela Lanka
Designation: Assistant Professor

Name of the Co-Coordinator: Dr. J. N. Lavanya Latha
Designation: Assistant Professor

Date: 25/6/22

S.No.	Name of the Student	Regd.No.	Signature of the Student
1	K. Phaneendra	Y20BIT101017	K. Phaneendra
2	N. Shiva Krishna	Y20BIT101008	N. Shiva Krishna
3	Y. Mamatha	Y20BIT101016	Y. Mamatha
4	V. Naga Supriya	Y20BIT101004	V. Naga Supriya
5	S. Harshitha	Y20BIT101013	S. Harshitha
6	Ch. Deepthi	Y20BIT101006	Ch. Deepthi
7	J. Keshavi	Y20BIT101001	J. Keshavi
8	K. Tilochana Devi	Y20BIT101001	Tilochana Devi
9	B. Taisairath	Y20BIT101007	B. Tai Sairath
10	M. Sekhar	Y20BIT101003	M. Sekhar
11	E. Navya Sri	Y20BIT101012	E. Navya Sri
12	S. Hasi Priya	Y20BIT101002	S. Hasi priya
13	L. Esthen	Y20BIT101013	Esthen. L
14	P. Sharmila	Y20BIT101015	P. Sharmila
15	R. Shama	Y20BIT101005	R. Shama
16	Sh. Subhani	Y20BIT101001	Sh. Subhani

[Handwritten Signature]
S. N. L.

Signature of the HOD

DEPARTMENT OF BIOSCIENCES & BIOTECHNOLOGY
UNIVERSITY COLLEGE OF ARTS & SCIENCE
KRISHNA UNIVERSITY
MACHILIPATNAM - 521 003, A.P.

KRISHNA UNIVERSITY



UNIVERSITY COLLEGE OF ARTS & SCIENCE MACHILIPATNAM-521004

Two weeks Value Added Course on "Pilot Scale Production of Fermented Foods and Beverages" to the M.Sc., Biotechnology students of academic year 2021-22 From 20-06-2022 to 06-07-2022

Day wise Student Attendance

Name of the Coordinator: Dr. Suseela Lanka
Designation: Assistant Professor

Name of the Co-Coordinator: Dr. J. N. Lavanya Latha
Designation: Assistant Professor

Date: 27/6/22

S.No.	Name of the Student	Regd.No.	Signature of the Student
1	K. phanindra	Y20BIT101017	K. phanindra.
2	J. keshavi	Y20BIT101009	J. keshavi
3	B. Jai Sainath	Y20BIT101007	B. Jai Sainath
4	V. Naga Supriya	Y20BIT101004	V. Naga Supriya
5	K. Tilochana Devi	Y20BIT101001	Tilochana Devi.
6	CH. Deepthi	Y20BIT101006	ch. Deepthi
7	R. Shama	Y20BIT101005	R. Shama
8	M. Sekhar	Y20BIT101003	M. Sekhar
9	E. Navya seni	Y20BIT101012	E. Navya seni
10	N. shiva krishna	Y20BIT101008	N. shiva krishna
11	Y. Mamatha	Y20BIT101016	Y. Mamatha
12	S. Hari Priya	Y20BIT101002	S. Hari priya
13	S. Harshitha	Y20BIT101014	S. Harshitha
14	P. sharmika	Y20BIT101015	P. sharmika
15	L. Esthen	Y20BIT101013	Esthen. L
16	SH. Subhami	Y20BIT101011	SH. Subhami

[Signature]

[Signature]

Signature of the HOD

DEPARTMENT OF BIOTECHNOLOGY
UNIVERSITY COLLEGE OF ARTS & SCIENCE
KRISHNA UNIVERSITY
MACHILIPATNAM - 521 003, A.P.

KRISHNA UNIVERSITY



UNIVERSITY COLLEGE OF ARTS & SCIENCE MACHILIPATNAM-521004

Two weeks Value Added Course on "Pilot Scale Production of Fermented Foods and Beverages" to the M.Sc., Biotechnology students of academic year 2021-22 From 20-06-2022 to 06-07-2022

Day wise Student Attendance

Name of the Coordinator: Dr. Suseela Lanka
Designation: Assistant Professor

Name of the Co-Coordinator: Dr. J. N. Lavanya Latha
Designation: Assistant Professor

Date: 28/6/22

S.No.	Name of the Student	Regd.No.	Signature of the Student
1	Y. Mamatha	Y20BIT101016	Y. Mamatha
2	Sh. Subhami	Y20BIT101011	Sh. Subhami
3	S. Harshitha	Y20BIT101014	S. Harshitha
4	V. Naga Supriya	Y20BIT101004	V. Naga Supriya
5	B. Jai Sainath	Y20BIT101007	B. Jai Sainath
6	CH. Deepthi	Y20BIT101006	CH. Deepthi
7	M. Sekhar	Y20BIT101003	M. Sekhar
8	J. Keshavi	Y20BIT101010	J. Keshavi
9	E. Navya Sai	Y20BIT101012	E. Navya Sai
10	L. Esther	Y20BIT101013	Esther, L
11	R. Shama	Y20BIT101005	R. Shama
12	K. Tilochana Devi	Y20BIT101001	Tilochana Devi
13	S. Hari Priya	Y20BIT101002	S. Hari priya
14	P. Sharmika	Y20BIT101005	P. Sharmika
15	N. Shiva Krishna	Y20BIT101008	N. Shiva Krishna
16	K. Phaneendra	Y20BIT101017	K. Phaneendra

Signature of the HOD

DEPARTMENT OF BIOSCIENCES & BIOTECHNOLOGY
UNIVERSITY COLLEGE OF ARTS & SCIENCE
KRISHNA UNIVERSITY
MACHILIPATNAM - 521 002, A.P.

KRISHNA UNIVERSITY



UNIVERSITY COLLEGE OF ARTS & SCIENCE MACHILIPATNAM-521004

Two weeks Value Added Course on "Pilot Scale Production of Fermented Foods and Beverages" to the M.Sc., Biotechnology students of academic year 2021-22 From 20-06-2022 to 06-07-2022

Day wise Student Attendance

Name of the Coordinator: Dr. Suseela Lanka
Designation: Assistant Professor

Name of the Co-Coordinator: Dr. J. N. Lavanya Latha
Designation: Assistant Professor

Date: 29/6/22

S.No.	Name of the Student	Regd.No.	Signature of the Student
1	L. Esthen	Y20BIT101013	Esthen.L
2	Y. Mamatha	Y20BIT101016	Y. Mamatha
3	S. Hasi Priya	Y20BIT101002	S. Hasi priya
4	V. Naga Supriya	Y20BIT101004	V. Naga Supriya
5	J. Keshavi	Y20BIT101009	J. Keshavi
6	R. Shama	Y20BIT101005	R. Shama
7	M. Sekhar	Y20BIT101003	M. Sekhar
8	B. Sai Sainath	Y20BIT101007	B. Sai Sainath
9	M. Shiva Krishna	Y20BIT101008	M. Shiva Krishna
10	CH. Deepthi	Y20BIT101006	Ch. Deepthi
11	K. Tilochana Devi	Y20BIT101001	Tilochana Devi
12	E. Navya Sri	Y20BIT101012	E. Navya Sri
13	SK. Subhavi	Y20BIT101011	SK. Subhavi
14	S. Harshitha	Y20BIT101014	S. Harshitha
15	P. Sharmila	Y20BIT101015	P. Sharmila
16	K. Phaneendra	Y20BIT101017	K. Phaneendra

[Signature]

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Signature of the HOD

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DEPARTMENT OF BIOSCIENCES & BIOTECHNOLOGY
UNIVERSITY COLLEGE OF ARTS & SCIENCE
KRISHNA UNIVERSITY
MACHILIPATNAM - 521 003, A.P

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UNIVERSITY COLLEGE OF ARTS & SCIENCE MACHILIPATNAM-521004

Two weeks Value Added Course on "Pilot Scale Production of Fermented Foods and Beverages" to the M.Sc., Biotechnology students of academic year 2021-22 From 20-06-2022 to 06-07-2022.

Day wise Student Attendance

Name of the Coordinator: Dr. Suseela Lanka
Designation: Assistant Professor

Name of the Co-Coordinator: Dr. J. N. Lavanya Latha
Designation: Assistant Professor

Date: 30/6/22

S.No.	Name of the Student	Regd.No.	Signature of the Student
1	Y. Mamatha	Y20BIT101016	Y. Mamatha
2	M. Sekhar	Y20BIT101003	M. Sekhar
3	R. Shama	Y20BIT101005	R. Shama
4	V. Naga Supraja	Y20BIT101004	V. Naga Supraja
5	B. Tai Sainath	Y20BIT101007	B. Tai Sainath
6	CH. Deepthi	Y20BIT101006	ch. Deepthi
7	S. Hasi Priya	Y20BIT101002	S. Hasi priya
8	J. Keshavi	Y20BIT101008	J. Keshavi
9	SK. Subhane	Y20BIT101011	SK. Subhane
10	S. Harshitha	Y20BIT101018	S. Harshitha
11	E. Navya Sai	Y20BIT101012	E. Navya Sai
12	N. Ashwini Krishna	Y20BIT101008	N. Ashwini Krishna
13	K. Tilochana Devi	Y20BIT101001	Tilochana Devi
14	P. Sharmila	Y20BIT101015	P. Sharmila
15	L. Esthen	Y20BIT101013	Esthen. L
16	K. Phaneendra	Y20BIT101017	K. Phaneendra

[Signature]

[Signature]

Signature of the HOD

HEAD
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UNIVERSITY COLLEGE OF ARTS & SCIENCE
KRISHNA UNIVERSITY
MACHILIPATNAM - 521 003, A.P

KRISHNA UNIVERSITY



UNIVERSITY COLLEGE OF ARTS & SCIENCE MACHILIPATNAM-521004

Two weeks Value Added Course on "Pilot Scale Production of Fermented Foods and Beverages" to the M.Sc., Biotechnology students of academic year 2021-22 From 20-06-2022 to 06-07-2022

Day wise Student Attendance

Name of the Coordinator: Dr. Suseela Lanka
Designation: Assistant Professor

Name of the Co-Coordinator: Dr. J. N. Lavanya Latha
Designation: Assistant Professor

Date: 1/7/22

S.No.	Name of the Student	Regd.No.	Signature of the Student
1	L. Esther	Y20BIT101013	Esther.L
2	SK. Subhan	Y20BIT101011	SK. Subhan
3	K. Tilochana Devi	Y20BIT101001	Tilochana Devi
4	M. Sekhar	Y20BIT101003	M. Sekhar
5	V-Naga Subhaja	Y20BIT101004	V-Naga Subhaja
6	CH. Deepthi	Y20BIT101006	ch. Deepthi
7	J. Keshavi	Y20BIT101008	J. Keshavi
8	B. Jai Sainath	Y20BIT101007	B. Jai Sainath
9	K. Phaneendra	Y20BIT101017	K. Phaneendra
10	S. Hasi Priya	Y20BIT101002	S. Hasi priya
11	E. Navya Sai	Y20BIT101019	E. Navya Sai
12	N. Shiva Krishna	Y20BIT101008	N. Shiva Krishna
13	S. Harshitha	Y20BIT101017	S. Harshitha
14	P. Shapmila	Y20BIT101015	P. Shapmila
15	R. Shama	Y20BIT101005	R. Shama
16	Y. Mamatha	Y20BIT101016	Y. Mamatha

[Signature]

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UNIVERSITY COLLEGE OF ARTS & SCIENCE
KRISHNA UNIVERSITY
MACHILIPATNAM - 521 003, A.P.

[Signature]

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UNIVERSITY COLLEGE OF ARTS & SCIENCE MACHILIPATNAM-521004

Two weeks Value Added Course on "Pilot Scale Production of Fermented Foods and Beverages" to the M.Sc., Biotechnology students of academic year 2021-22 From 20-06-2022 to 06-07-2022

Day wise Student Attendance

Name of the Coordinator: Dr. Suseela Lanka
Designation: Assistant Professor

Name of the Co-Coordinator: Dr. J. N. Lavanya Latha
Designation: Assistant Professor

Date: 2/7/22

S.No.	Name of the Student	Regd.No.	Signature of the Student
1	K. Phaneendra	Y20BIT101017	K. Phaneendra
2	Y. Mamatha	Y20BIT101016	Y. Mamatha
3	V-Naga Supraja	Y20BIT101004	V-Nagasupraja
4	M. Selchar	Y20BIT101003	M. Selchar
5	J. Keshavi	Y20BIT101009	J. Keshavi
6	N. Shiva Krishna	Y20BIT101008	N. Shiva Krishna
7	R. Shama	Y20BIT101005	R. Shama
8	B. Jai Sainath	Y20BIT101007	B. Jai Sainath
9	SK. Subhani	Y20BIT101011	SK. Subhani
10	K. Tilochana Devi	Y20BIT101001	Tilochana Devi
11	CH. Deepthi	Y20BIT101006	CH. Deepthi
12	E. Navya Sai	Y20BIT101012	E. Navya Sai
13	S. Harshitha	Y20BIT101013	S. Harshitha
14	P. Sharmila	Y20BIT101015	P. Sharmila
15	L. Esthen	Y20BIT101013	Esthen. L
16	S. Hari Priya	Y20BIT101002	S. Hari Priya

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UNIVERSITY COLLEGE OF ARTS & SCIENCE MACHILIPATNAM-521004

Two weeks Value Added Course on "Pilot Scale Production of Fermented Foods and Beverages" to the M.Sc., Biotechnology students of academic year 2021-22 From 20-06-2022 to 06-07-2022

Day wise Student Attendance

Name of the Coordinator: Dr. Suseela Lanka
Designation: Assistant Professor

Name of the Co-Coordinator: Dr. J. N. Lavanya Latha
Designation: Assistant Professor

Date: 4/7/22

S.No.	Name of the Student	Regd.No.	Signature of the Student
1	SK. Subhani	Y20BIT101011	SK. Subhani
2	K. Phaniendra	Y20BIT101017	K. Phaniendra
3	N. Shiva Krishna	Y20BIT101008	N. Shiva Krishna
4	K. Tilochana Devi	Y20BIT101001	Tilochana Devi
5	V. Naga Supraja	Y20BIT101004	V. Naga Supraja
6	R. Sai Sainath	Y20BIT101007	R. Sai Sainath
7	J. Keshavi	Y20BIT101009	J. Keshavi
8	S. Hari Priya	Y20BIT101002	S. Hari Priya
9	CH. Deepthi	Y20BIT101006	CH. Deepthi
10	M. Sekhar	Y20BIT101003	M. Sekhar
11	E. Navya Sai	Y20BIT101012	E. Navya Sai
12	R. Shama	Y20BIT101005	R. Shama
13	S. Harshitha	Y20BIT101014	S. Harshitha
14	P. Sharmila	Y20BIT101015	P. Sharmila
15	Y. Mamatha	Y20BIT101016	Y. Mamatha
16	L. Esther	Y20BIT101013	Esther. L

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UNIVERSITY COLLEGE OF ARTS & SCIENCE MACHILIPATNAM-521004

Two weeks Value Added Course on "Pilot Scale Production of Fermented Foods and Beverages" to the M.Sc., Biotechnology students of academic year 2021-22 From 20-06-2022 to 06-07-2022.

Day wise Student Attendance

Name of the Coordinator: Dr. Suseela Lanka
Designation: Assistant Professor

Name of the Co-Coordinator: Dr. J. N. Lavanya Latha
Designation: Assistant Professor

Date: 5/7/22

S.No.	Name of the Student	Regd.No.	Signature of the Student
1	L. Esther	Y20BIT101013	Esther. L
2	K. Phaneendra.	Y20BIT101017	K. Phaneendra.
3	M. Selvar	Y20BIT101003	M. Selvar
4	V. Naga Supraja	Y20BIT101004	V. Naga Supraja
5	R. Shama	Y20BIT101005	R. Shama
6	J. Keshavi	Y20BIT101009	J. Keshavi
7	K. Tilochana Devi	Y20BIT101001	Tilochana Devi.
8	B. Sai Sainath	Y20BIT101007	B. Sai Sainath
9	CH. Deepthi	Y20BIT101006	Ch. Deepthi
10	D. Shiva Krishna	Y20BIT101008	D. Shiva Krishna
11	S. Harshitha	Y20BIT101013	S. Harshitha
12	E. Navya Sri	Y20BIT101012	E. Navya Sri
13	Y. Marnatha	Y20BIT101016	Y. Marnatha
14	S. Hari Priya	Y20BIT101002	S. Hari priya.
15	P. Sharmila	Y20BIT101015	P. Sharmila.
16	SK. Subhavi	Y20BIT101011	SK. Subhavi

[Signature]

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UNIVERSITY COLLEGE OF ARTS & SCIENCE MACHILIPATNAM-521004

Two weeks Value Added Course on "Pilot Scale Production of Fermented Foods and Beverages" to the M.Sc., Biotechnology students of academic year 2021-22 From 20-06-2022 to 06-07-2022

Day wise Student Attendance

Name of the Coordinator: Dr. Susela Lanka
Designation: Assistant Professor

Name of the Co-Coordinator: Dr. J. N. Lavanya Latha
Designation: Assistant Professor

Date: 6/7/22

S.No.	Name of the Student	Regd.No.	Signature of the Student
1	R. Shama	Y20BIT101005	R. Shama
2	SK-Subhani	Y20BIT101011	SK-Subhani
3	S. Hari Priya	Y20BIT101002	S. Hari priya
4	V. Naga Supriya	Y20BIT101004	V. Naga Supriya
5	B. Jai Sainath	Y20BIT101007	B. Jai sainath
6	K. Tilochana Devi	Y20BIT101001	Tilochana Devi
7	Ch. Deepthi	Y20BIT101006	Ch. Deepthi
8	J. Keshavi	Y20BIT101009	J. Keshavi
9	N. Shiva Krishna	Y20BIT101008	N. Shiva Krishna
10	SK-Subhani & K. Phaneendra	Y20BIT101010	SK-Subhani
11	S. Harshitha	Y20BIT101012	S. Harshitha
12	E. Navyasri	Y20BIT101019	E. Navyasri
13	Y. Marnatha	Y20BIT101016	Y. Marnatha
14	P. Sharmila	Y20BIT101015	P. Sharmila
15	M. Sekhar	Y20BIT101003	M. Sekhar
16	L. Esthen	Y20BIT101013	Esthen.L

L. Esthen

J. N. Lavanya Latha

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DEPARTMENT OF BIOSCIENCES & BIOTECHNOLOGY
UNIVERSITY COLLEGE OF ARTS & SCIENCE
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MACHILIPATNAM - 521 003, A.P.



KRISHNA UNIVERSITY
UNIVERSITY COLLEGE OF ARTS & SCIENCES
MACHILIPATNAM-521004
Department of Biosciences and Biotechnology

Submission of a brief report on two weeks value added course on **"Pilot Scale Production of Fermented Foods and Beverages"** (21BITVAC1) to the Biotechnology second year students in the academic year 2021-22 from 20-06-2022 to 06-07-2022

Date: 07-07-2022

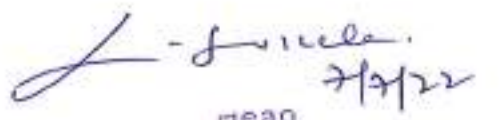
Name of the course coordinator: **Dr. Suseela Lanka**
Assistant Professor
Department of Biosciences and Biotechnology
Phone Number :9866914670
Email: suseelalankaku@gmail.com

Name of the course Co-coordinator: **Dr. J. Naveena Lavanya Latha**
Assistant Professor
Department of Biosciences and Biotechnology
Phone Number: 9290907081
Email: jnll.bsbt@kru.ac.in

Brief Report,

Fermented foods add good bacteria to the diet and are the healthiest, cheapest, and most delicious super-foods in the World. The purpose of this certificate program is to provide postgraduate students of Biotechnology at Krishna University with an opportunity to gain unique knowledge and skills specific to the fermented foods and beverage industries. Students that successfully complete this program will obtain knowledge with a competitive edge and leadership potential specific to career opportunities in this unique and growing field. The various topics covered under this certificate course are - Introduction to fermented foods, Science behind fermented foods, Role of microorganisms in fermentation, Types of fermented food products, Microbial Production of cheese, Microbial flora of Idli, Introduction to beverages, Types of beverages, Pilot scale production of wine and beer, Pilot scale production of apple cider vinegar, Packing and presentation. The students after completion of this course have gained greater understanding and appreciation of fermented foods and their history, culture and science. Also equipped with a deeper knowledge of beneficial microbes to preserve food and harmful microbes that can contaminate food. Obtained enough knowledge on chemistry and microbiology of different kinds of fermentation through hands-on experiments. Gained good exposure on compositional features of ingredients and raw materials specific to various fermented foods and beverages. They also learned the scientific principles and application of instruments used for chemical and microbial characterization.


Signature of the Coordinator and Co-coordinator


read
Department of Bioscience and Biotechnology
Krishna University
MACHILIPATNAM - 521 004



GPS Map Camera

Krishna, Andhra Pradesh, India
University Rd, Andhra Pradesh 521001, India

Lat 16.13974°
Long 81.101598°
20/06/22 04:22 PM



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**A 2 Week Value added Programme
on "Pilot Scale production of
Fermented Foods and Beverages"**

Dr. Susenla Laska
Programme Coordinator
Assistant Professor
-Department of Biotechniques and Biotechnology
Krishna University
Machilipatnam

GPS Map Camera

**Krishna, Andhra Pradesh, India
University Rd, Andhra Pradesh 521001, India**

Lat 16.139742°

Long 81.101598°

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GPS Map Camera

Machilipatnam Rural, Andhra Pradesh, India

44Q2+24W, KONA ROAD, Machilipatnam Rural, Andhra Pradesh 521004,

India

Lat 16.137882°

Long 81.099988°

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Machilipatnam Rural, Andhra Pradesh, India



GPS Map Camera

Machilipatnam Rural, Andhra Pradesh, India



GPS Map Camera

Krishna, Andhra Pradesh, India
43QX+JJX, University Rd, Andhra Pradesh 521001, India

Lat 16.139146°

Long 81.099421°

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University



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UNIVERSITY COLLEGE OF ARTS & SCIENCES
Rudravaram, Machilipatnam - 521 004

Department of Biosciences and Biotechnology
Organized

A two week value added programme on

"Pilot Scale Production of Fermented Foods and Beverages"

CERTIFICATE

This is to certify that Mr./Mrs. R. SHAMA

with Regd. No. Y20BIT101005 of

M.Sc., Biotechnology, Department of Biosciences and Biotechnology, University College of Arts and Science, Machilipatnam has successfully completed the Two Weeks Value Added Course on "**Pilot Scale Production of Fermented Foods and Beverages**" organized by Department of Biosciences and Biotechnology, University College of Arts and Science, Krishna University, Machilipatnam from 20-06-2022 to 06-07-2022.

L. Suseela

Dr. Suseela Lanka

J. Naveend

Dr. J. Naveend Lavanya Latha

L. Suseela

Dr. Suseela Lanka

A. Vasan

Prof. A. VASAN Maruthi



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UNIVERSITY COLLEGE OF ARTS & SCIENCES

Rudravaram, Machilipatnam - 521 004

Department of Biosciences and Biotechnology
Organized

A two week value added programme on

"Pilot Scale Production of Fermented Foods and Beverages"

CERTIFICATE

This is to certify that Mr./Mrs. E. NAVYA SRI with Regd. No. Y20BII101012 of
B.Sc., Biotechnology, Department of Biosciences and Biotechnology, University College of Arts and Science, Machilipatnam has
successfully completed the Two Weeks Value Added Course on **"Pilot Scale Production of Fermented Foods and Beverages"**
organized by Department of Biosciences and Biotechnology, University College of Arts and Science, Krishna University,
Machilipatnam from 20-06-2022 to 06-07-2022.

Suseela Lanka

Suseela Lanka

Suseela Lanka

Dr. Suseela Lanka

Prof. Y. AVASIN Maruthi

Prof. Y. AVASIN Maruthi



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UNIVERSITY COLLEGE OF ARTS & SCIENCES

Rudravaram, Machilipatnam - 521 004

Department of Biosciences and Biotechnology
Organized

A two week value added programme on

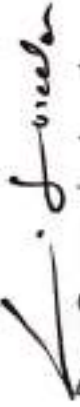
"Pilot Scale Production of Fermented Foods and Beverages"

CERTIFICATE

This is to certify that Mr./Mrs. S. HARIPRIYA

with Regd. No. Y20BII101002 of

M.Sc., Biotechnology, Department of Biosciences and Biotechnology, University College of Arts and Science, Machilipatnam has successfully completed the Two Weeks Value Added Course on **"Pilot Scale Production of Fermented Foods and Beverages"** organized by Department of Biosciences and Biotechnology, University College of Arts and Science, Krishna University, Machilipatnam from 20-06-2022 to 06-07-2022.


Dr. Suseela Lanka


Dr. J. Naveena Lavanya Latha


Dr. Suseela Lanka


Prof. V. AVASIN Maruthi



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UNIVERSITY COLLEGE OF ARTS & SCIENCES

Rudravaram, Machilipatnam - 521 004

Department of Biosciences and Biotechnology
Organized

A two week value added programme on

"Pilot Scale Production of Fermented Foods and Beverages"

CERTIFICATE

This is to certify that Mr./Mrs. K. TILOCHANA DEVI with Regd. No. Y20BIT 101001 of M.Sc., Biotechnology, Department of Biosciences and Biotechnology, University College of Arts and Science, Machilipatnam has successfully completed the Two Weeks Value Added Course on **"Pilot Scale Production of Fermented Foods and Beverages"** organized by Department of Biosciences and Biotechnology, University College of Arts and Science, Krishna University, Machilipatnam from 20-06-2022 to 06-07-2022.

L. Suseela
Dr. Suseela Lanka
Dean, Biotechnology

Dr. J. Naveena
Dr. J. Naveena Lavanya Latha
Dean, Biotechnology

L. Suseela
Dr. Suseela Lanka
Dean, Biotechnology

Prof. A. V. S. N. Maruthi
Prof. A. V. S. N. Maruthi
Head of the Department